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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,812	12/24/2003	Mark Thomas Grimm	08350.2532	1718

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CATERPILLAR/FINNEGAN, HENDERSON, L.L.P.  
901 New York Avenue, NW  
WASHINGTON, DC 20001-4413

EXAMINER
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NORMAN, MARC E

ART UNIT	PAPER NUMBER
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3744

MAIL DATE	DELIVERY MODE
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08/03/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/743,812	<b>Applicant(s)</b> GRIMM ET AL.	
	<b>Examiner</b> Marc E. Norman	<b>Art Unit</b> 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 26-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 26-28, 30, 31 and 34 is/are rejected.
- 7) ☒ Claim(s) 29, 32 and 33 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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## DETAILED ACTION

### *Preliminary Comments*

Claims 26-34 were previously indicated as being allowable. However, in view of the recent Supreme Court KSR decision, the previously applied rejections of claims 26-28, 30, 31, and 34 are being reinstated for the reasons set forth in the rejections set forth below. Since these rejections are simply a reinterpretation of previously applied references in view of the KSR decision, this Action is made FINAL.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 26-28, 30, 31, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grabon et al. in view of Tao et al.

As per claim 26, Grabon et al. teaches an air treatment system comprising a cooling circuit 10, first heat exchanger 38, secondary circuit 40, controllers (18, 26, 28) receiving desired temperature and ambient temperatures (based on associated temperature sensors as shown in Figure 1), a secondary circuit operation (valves 20, 22, 24), and controlling the opening/closing of these valves based on temperature requirements. Grabon et al. does not teach the system being applied to either an operator or sleeper cabin. Since an "operator cabin" or "sleeper cabin" is simply one of many types of spaces that might be controlled using the system of Grabon et al., and the temperature control of operator cabins is well known in the art (see CAB HVAC of Tao et al.), it would have been an application to one of ordinary skill in the art to apply to an operator cabin for the purpose of controlling the temperature therein since the application of the cooling system of Grabon et al. to the operator/sleeper cabin of Tao et al. yields a predictable result in cooling those spaces using a known and well established type of secondary circuit cooling system.

As per claims 27 and 30, Grabon et al. also does not teach a sleeping cabin. However, as also shown in Tao et al., systems for controlling both cabs and sleepers are known in the art. It would have been obvious to one of ordinary skill in the art to use the system of Grabon et al. to control the temperature of a sleeper cabin in addition to the cab section, as discussed regarding claim 26.

As per claims 28 and 31, Tao et al. further teaches a heating circuit (heated water circuit 36 and 38) in fluid communication with the cooling system (Figure 1).

As per claim 34, Grabon et al. does not specifically teach a heating device proximally disposed to the heat exchangers. However, such heating devices are well-known in the art for

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the purposes of removing reheating air after it has been cooled by the heat exchanger in order to remove humidity from the air (see for example Figure 3 of Tao et al. showing a fan 80, heat exchanger 84, and heater coil 86 combination. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply such a heater to the heat exchangers of Grabon et al. for the similar purpose of controlling the humidity of the air entering the control space.

*Allowable Subject Matter*

Claims 29, 32, and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Conclusion*

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc E. Norman whose telephone number is 571-272-4812. The examiner can normally be reached on Mon.-Fri., 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MN



MARC NORMAN  
PRIMARY EXAMINER